



National Weather Service, Louisville

Eye on the Sky



Severe Weather Season in Fall and Winter?

Since When??

By Ted Funk, Science and Operations Officer

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What a fall and early winter it was for thunderstorms and severe weather. Central Kentucky and south-central Indiana experienced three significant severe weather events during this period, including on November 6 and 15, 2005 and January 2, 2006. Obviously, this does not fit into our usual or primary season, that being April, May, and June. So, why did we have these “out of season” episodes this time around?

Well, having at least



Fig 1. Path of the “Evansville” tornado on November 6, 2005. The tornado was rated F2 and F3 on the Fujita Scale along much of its path.

one autumn event actually is not unusual across the Ohio Valley. While spring is the climatologically-favored time for severe weather and tornadoes, often there is a sec-

ond, albeit less pronounced, peak in the fall. More often than not, our region experiences at least one severe weather event

see “Cold Season Tornadoes,” page two...

River Summary

By Mike Callahan, Service Hydrologist

It was a mixed bag across our county warning area regarding precipitation this winter. Hoosiers living in southern Indiana

collected much more than their fair share of water while Kentuckians were quite dry.

The precipitation for January was fairly light until the last two weeks.

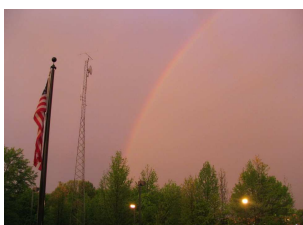
Two storms resulted in some minor flooding along rivers and streams in central Kentucky. For the month, most locations gathered about an inch or

see “Rivers,” page three...

Rainbows as seen from the Louisville weather office:



April 26, 2006



April 22, 2006

Not Again!

U.S. Park Ranger Roy Sullivan was struck by lightning on seven different occasions, and survived each one! However, on average, lightning remains one of the deadliest of all weather phenomena. If you hear thunder, you're close enough to be struck by lightning!

Cold Season Tornadoes, cont'd. from page one...

in the fall, and November seems to be the month this typically occurs. During this time, the warmth and moisture from early fall can still linger to our south across the southeastern U.S., and be drawn northward ahead of a strong low pressure system and accompanying cold front. This causes the atmosphere to become more unstable. In addition, strong winds aloft and vertical wind shear (i.e., winds changing direction and increasing in speed with height) between the surface and jet stream level (roughly 30,000 ft) also become increasingly common in the fall (similar to the spring). When the cold front collides with the unstable air mass, severe thunderstorms and even torna-

does can erupt. This was the case twice last November and again on January 2. While the severe events in November were not that unusual, the one in January was, although severe weather can occur anytime during the day or year if the right atmospheric ingredients come together. For example, a strong tornado (F3 damage) hit Owensboro, Kentucky on January 3, 2000 causing an estimated 65-70 million dollars in damage. Because severe storms can strike during any month, it is a good idea to have an action plan ready to go at all times, not just during spring.

The November 6, 2005 event caused a devastating tornado near Evansville, Indiana around 2:00 am, which

killed 25 and injured over 200 people along its path. The F3 tornado was on the ground for 43 miles and 41 minutes, crossing the Ohio River three times (Fig. 1). Figure 2, a reflectivity image from the NWS Louisville-Ft. Knox Doppler radar, shows the supercell that spawned the tornado, while velocity data from the Evansville Doppler radar (Fig. 3) shows a yellow-blue couplet north of Henderson, which represents the strong circulation associated with the tornado that struck near Evansville. Meanwhile, a separate tornado during the early morning hours of November 6 caused F1 damage in Munfordville (Hart County) in see "Cold Season Tornadoes," page three...

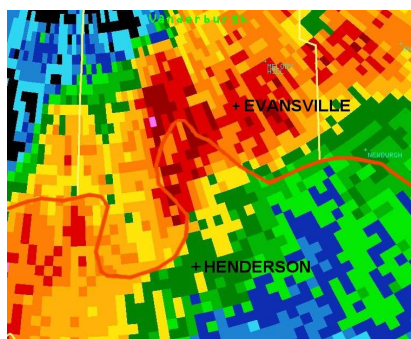


Fig 2. Reflectivity radar image showing the supercell that caused the tornado.



Fig 3. Velocity radar image showing a strong vortex associated with the tornado. Yellow (blue) represent winds directed away from (toward) the Evansville radar located north of the area shown.

Cold Season Tornadoes, cont'd. from page two...

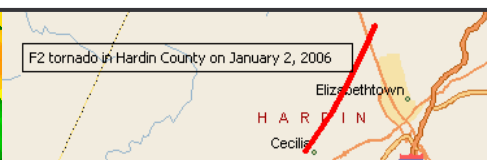
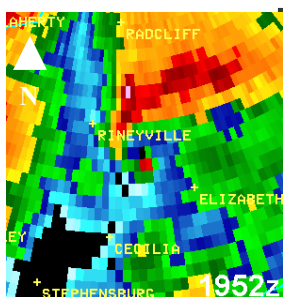
central Kentucky.

On January 2, 2006, a line of strong thunderstorms along a cold front slashed across central Kentucky producing reports of wind damage. In addition, several classic supercell storms developed ahead of the line, producing large hail and a couple of tornadoes. One tornado of note struck parts of Hardin County, Kentucky producing F1-F2 storm damage as it tracked nearly 10 miles in the 15

minutes it was on the ground (Fig. 4). NWS Doppler radar data at 1952 utc (2:52 pm est) showed an intense supercell over central Hardin County (Fig. 5), with a small high reflectivity spot (in red) about midway between Rineyville and Elizabethtown. This was the actual location of the tornado on the ground at that time. The corresponding velocity image (Fig. 6) showed a bright red-green couplet at the same location,

again indicating the placement of the tornado.

While fall 2005, winter 2006, and this past April were relatively active thunderstorm periods, this says little about whether the rest of spring and summer 2006 also will be active. Either way, National Weather Service meteorologists and technicians will always be ready to serve you, and to help protect life and property.



The tornado near Elizabethtown, Kentucky had a path length of ten miles.

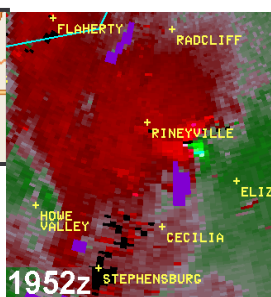


Fig 6. Velocity radar image showing a strong vortex associated with the tornado. Bright red (green) represent winds directed away from (toward) the Louisville radar.

Fig 5. Reflectivity radar image showing the supercell that caused the tornado in Hardin County.

Rivers, cont'd from page one...

two more than normal.

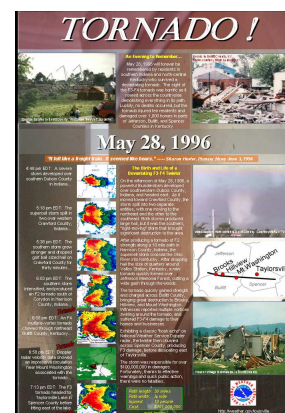
Not much happened during February and most spots were an inch or two shy of normal.

March made up for the previous month's lack of action especially in southern Indiana. A series of storms dumped

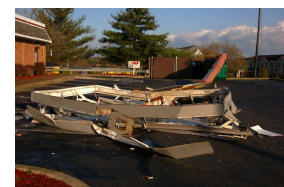
heavy rain on Hoosiers, resulting in moderate flooding. Minor flooding was also noticed along the Rolling Fork River in central Kentucky. Unfortunately, the south half of Kentucky received little of this rain. The totals for March were remarkable

as one moved from north to south. In Indiana, some towns totaled over five inches above normal, but in parched southern Kentucky counties totals were 3 to 4 inches below normal.

The outlook for the spring does not call for see "Rivers," page four...



Poster created by NWS Louisville commemorating the 10th Anniversary of the devastating tornado that tore through Jefferson, Bullitt, and Spencer counties on May 28, 1996.



KFC sign toppled in Georgetown, Kentucky from thunderstorm winds on April 2, 2006.



Turbulent sky approaching Stamping Ground, Kentucky on April 2, 2006.

Rivers, cont'd. from page three...

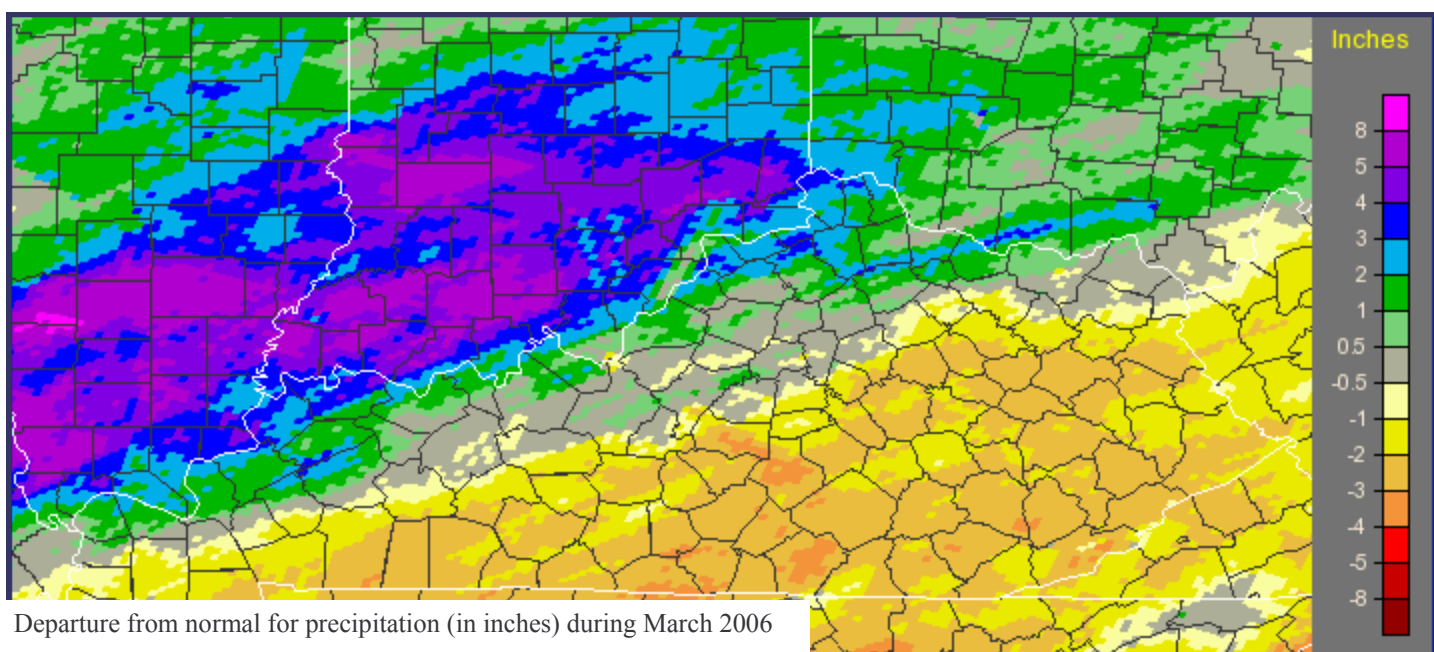
above normal precipitation so if conditions are drier than normal, Kentuckians in the south may be dealing with a drought. Of course, this will give some Hoosiers a chance to dry out.

<http://www.floodsafety.noaa.gov/>

Photo courtesy Mike Schellenberger KC9ALQ



Blue River at Milltown, Indiana, March 12, 2006



NWS Louisville Receives Silver Medal Award

NWS Louisville was among a group of offices that won the United States Department of Commerce Silver Medal Award for Meritorious Federal Service. It was given for providing life-saving information before, during, and after the record

snowstorm and floods across the Ohio Valley in December 2004 and January 2005.

Exemplary service and communication, including extended watch and warning lead times, and other proactive information provided by a dedicated WFO Louis-

ville staff helped to mitigate the negative effects of the winter storm and subsequent flooding. As a result, local officials, media, and members of the public had ample time to take proper precautions to protect their property and their lives.



Senior Forecaster Joe Ammerman accepts the Silver Medal Award on behalf of NWS Louisville

NOAA Weather Radio All Hazards

By Angie Lese, Journey Forecaster

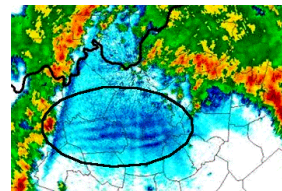
During the spring months, southern Indiana and central Kentucky are more prone to severe weather than at any other time of the year. It is important to keep you and your family as safe as possible from any life-threatening weather situations.

Since severe weather can strike at any time, why not have a 24-hour weather information source handy?

The NOAA Weather Radio All Hazards (NWR) broadcasts continuous weather information directly from National Weather Service offices via a nationwide network of radio stations. NWR broadcasts watches, warnings, forecasts, and other hazard information 24 hours a day. More importantly, NWR will interrupt regular broadcasting during emergency situations. For example, whenever the National Weather Service issues a tornado warning, NWR

will sound an alert informing you immediately of the life-threatening situation. Even overnight, the alert system will notify you of any impending emergency, helping you and your family get to safety which could save your lives!

So be prepared during the severe weather season the right way. Protect yourself and your family by purchasing a NOAA Weather Radio All Hazards!



Circled area shows a cluster of gravity waves. They were generated by the strong thunderstorms to the north and north-east of the waves, propagating southward across Kentucky. The atmospheric waves can cause significant turbulence for pilots. April 19, 2006.



Damage to homes in Elizabethtown (above) and Pleasure Ridge Park (below) from severe thunderstorm winds on March 9, 2006.



Lightning Safety Awareness Week June 18-24

Summer is the peak season for one of the nation's deadliest phenomena: lightning. The goal of Lightning Safety Awareness Week is to lower lightning death and injury rates across

America, where an average of 67 people are killed each year. That's more than the average number of people killed by tornadoes! Those who survive lightning strikes are often left with

severely debilitating health issues.

Visit the website below for more information, or call the Louisville NWS office to learn more about lightning.

<http://www.lightningsafety.noaa.gov/>

Tornado Safety Tips:

- At **home**, move to a pre-designated shelter, such as the interior part of a basement and get under something sturdy like a table. If an underground shelter is not available, go to an inside room on the lowest floor, e.g., a closet, hallway, or bathroom with no windows. Interior bathrooms or closets can be fortified by concrete and/or steel to offer extra protection. Put as many walls as possible between you and the outside. Cover your body with a blanket or mattress. Tune to your battery operated NOAA Weather Radio while waiting out the storm.
- At **work or school**, move to a pre-designated emergency shelter. If a shelter does not exist, go to an interior hallway or small room on the building's lowest level. Avoid windows, cafeterias, auditoriums, and other areas with free-span roofs. Do not leave if a tornado threatens. A school bus or car is a dangerous place to be in severe weather!
- In the **open**, lie flat in a nearby ditch or low spot. Cover your head with your hands as you lay face down to protect against flying debris. However, be alert for possible rapidly rising waters.

The Data Bank

By Don Kirkpatrick, Senior Meteorologist

Continuing with this issue, interesting weather facts relevant to the ongoing or upcoming season are presented via "The Data Bank."

MYTH: The southwest corner of a basement is the best place to be during a tornado.

FACT: Stay away from outside walls. The southwest corner is no safer than any other part of the basement because walls, floors, and furniture can collapse or be blown into any corner. The "safe southwest corner" is based on the belief that, since tornadoes usually come from the southwest, debris will mainly fall into the northeast side of the basement. However, tornadoes are not straight line winds, so the strongest wind may be blowing from any direction. Also, tornadoes themselves may arrive from any direction.

With the arrival of the spring tornado season, we will provide the latest in tornado safety with this issue while dispelling misconceptions.

Since the April 3, 1974 tornado super outbreak, much has changed regarding tornado safety. Advances in technology, communication, and education have resulted in a much improved plan to survive.

Shortly after the super outbreak, the Na-

tional Weather Service (NWS) in Louisville began broadcasting severe weather watches and warnings via the NOAA Weather Radio All Hazards (NWR). In the last 30 years, NWR (the "Voice of the National

Weather Service") has saved countless lives. Watches and warnings are broadcast and then retransmitted by many local radio and television stations. With this information, emergency

MYTH: Windows should be opened to equalize pressure and minimize damage.

FACT: Avoid windows. Flying glass can injure or kill. Tornadoes do not make houses explode, and will likely blast the windows open anyway!

management and public safety officials activate warning systems to alert communities of an impending tornado threat.

MYTH: Areas near rivers, lakes, and mountains are safe from tornadoes.

FACT: No place is safe from tornadoes. Violent tornadoes have crossed rivers of all shapes and sizes, as well as high elevations in the Appalachians and Rockies. The 2005 Evansville tornado crossed the Ohio River three times!

Owners of a NWR receiver equipped with a warning alarm tone have instant access to emergency information that can be life saving. In addition, the NWS has enhanced the format used to alert the public. This technology called Specific Area Message Encoding (SAME) allows you to program your weather radio to receive watches and warnings for those specific geographic locations (counties) of your choosing. This helps you monitor severe weather in and around your area.

Everyone should have a plan to survive a tornado, whether you are in your home, at work or school, in your motor vehicle, at a store or

mall, or outdoors.

Who is at most risk from tornadoes? The answer is people in mobile homes and automobiles. Mobile homes are quite vulnerable to high winds and even mobile homes that are tied down cannot withstand

Continued on page seven...

The Data Bank, cont'd from page six...

the force of tornadic winds. If you live in a mobile home community, make arrangements to stay with friends or family who have a basement. Put your plan in action when a tornado watch is issued.

April, May, and June are prime tornado months across Kentucky and southern Indiana. When the next tornado threatens, be prepared. Know the safe spots in your workplace and at home. Your shelter should include a NWR with a warning alarm tone and battery back-up to receive warnings from the National Weather Service. Having a plan in place before the tornado strikes could save your life!

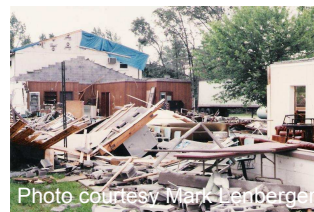


TORNADO FACTS

- Wind speeds have only been directly recorded in weak tornadoes because strong tornadoes destroy weather instruments. Mobile Doppler radars have remotely sensed tornado wind speeds **above ground level** as high as 318 mph which is at the top of the F5 classification on the Fujita Scale (261—318 mph).
- Large, fat tornadoes are not necessarily the strongest tornadoes. The size or shape of any single tornado does not say anything conclusive about its strength. Small (rope) tornadoes can do major damage while some quarter-mile wide twisters may produce only weak damage. There are statistics toward wide tornadoes producing more damage but this may be out of greater opportunity for the tornado to reach a target because of its width.
- The most common sound a tornado produces is a continuous rumble, like a close-by train. However, it depends on what it is hitting and its size, intensity, and closeness. A twister tearing through a densely populated area may produce a tremendous roar while one in the open may produce a loud whooshing sound, like that of an open car window while driving very fast, or similar to a waterfall.



All pictures on this page are from the tornado of May 28, 1996 that tore through Jefferson, Bullitt, and Spencer counties in Kentucky.



MYTH: Highway overpasses are safe tornado shelters.

FACT: An overpass is one of the worst places to go. It is a collection area for tornadic debris as well as a wind tunnel. Tornado winds squeezing under the overpass speed up by as much as 25%. So, for example, 200 mph tornado winds could blow at 250 mph under the overpass. Even when gripping the girders (if they exist), you may be blown loose, out from under the bridge into the open.

On May 3, 1999, two people were killed and several others injured in Newcastle and Moore, Oklahoma, when a tornado blew them out from under bridges on Interstates 44 and 35. Another person parked under a bridge was killed in his truck.

Tornado Safety Tips:

- In your **motor vehicle**, leave it for safe shelter if possible or drive out of the tornado's path. If traffic is jammed or the tornado is bearing down on you at close range, your only option may be to park safely off the traffic lanes, get out, and lie flat in a low spot as far from the road as possible (to avoid flying vehicles). If traffic allows, and the tornado is distant, you probably have time to drive out of its path. Watch the tornado closely compared to a fixed object in the foreground. If it appears to be moving to your right or left, it is not moving toward you. Escape to your right if it is moving to your left, and vice versa. If the tornado appears to stay in the same place, growing larger or getting closer, it is headed right at you. You must take shelter away from the car or get out of its way fast.
- In a **store or mall**, get to a designated shelter or restroom if possible. The four inner walls and plumbing of a restroom offer greater safety than long span buildings whose roof structure is supported solely by outside walls. If there is not time to go anywhere, move to the center of the lowest level of the building, away from windows, and lie flat. Try to get under something that will support or deflect flying debris.

Scenes from the aftermath of the January 2, 2006 tornado in Elizabethtown, Kentucky.



Tornado Oddities

By Don Kirkpatrick, Senior Meteorologist

A tornado may demolish one house and leave the next one unscathed. A multi-vortex tornado may only be strong enough to do minor damage to a particular house that does not take a direct hit, while a smaller sub-vortex may level the house next door with winds over 200 mph. Also, an unanchored mobile home may be destroyed while a brick home is barely nicked from a weak tornado.

Violent tornadoes can drive wood splinters into bricks, strip road pavement, and drive straw into trees. Asphalt pavement may strip when winds sandblast the edges with gravel. Tornado winds can bend a tree or other objects, creating cracks in which straw or splinters can become lodged before the tree straightens and the crack tightens.

Debris may be carried long distances by middle and upper atmospheric winds after being lofted by a tornado. The vertical winds in tornadoes can be strong enough to temporarily levitate heavy objects with flat sides or large faces to the wind (such as roofs, trees, and cars) and lift lightweight objects many thousands of feet high. The longest known distance that debris has ever been carried was a cancelled check found in a corn field near Palmyra, Nebraska, 305 miles away from a tornado that hit Great Bend, Kansas.

The Great Bend tornado of 1915 had a number of oddities associated with it. Part of a farmstead that was blown away included five horses (the only uninjured survivors) that were carried from a barn a quarter mile, hitched to the same rail. A necktie rack was carried 40 miles with ten ties still fastened. A flour sack from a mill was carried 110 miles to the northeast, possibly the longest distance ever recorded for an object weighing more than one pound. Other debris, including photographs, money, receipts, clothing, and shingles rained on the town of Glasco, 80 miles away. Perhaps the most bizarre damage in Great Bend was an iron water hydrant, found full of wood splinters.

Newest Cooperative Observer in Central Kentucky

By Larry Dattilo, Data Acquisition Program Manager

Millerstown, Kentucky, in extreme northwestern Hart County,

has its own official weather observer. Mr. Stanley Bell became the official Cooperative Weather Observer for Hart County in March

2006. Stanley will be measuring rainfall, snowfall, as well as high and low temperatures, and reporting them on a daily basis to the NWS

see "Co-Op," page nine...

KID'S CORNER

By Pam Lozier, Administrative Support Assistant

Try some of these fun things to do and make while you are out of school for summer break (with your parents' permission)!

Make a puzzle!

You will need nature magazines to cut up, scissors, glue, and heavy paper or cardboard.

1. Cut out a large picture of an animal.
2. Glue the picture on cardboard or heavy paper.
3. Cut the picture into puzzle pieces.
4. See if you or a friend can put the puzzle back together!

Make dough names to eat!

You will need one cup of peanut butter, one cup of honey, and two cups of powdered milk.

1. Wash your hands.
2. Mix the ingredients in a bowl.
3. Add more milk if the dough is too sticky.
4. Form the dough into the letters of your name.
5. Eat your name!

Make a "Days of the Week" Journal

You will need seven sheets of paper.

1. Write the name of a day on each page. Start with Sunday.
2. Each day, draw a picture or write about something you did.
3. If you like, you can make a cover for your journal!

Play a Guessing Game

Fill a jar with candies, cotton balls, or marbles. Ask family members to guess how many are in the jar. Write down their guesses. Take a guess yourself. Then count the number of things in the jar. Whose guess was closest?

Have a safe and fun time with your friends and family for summer vacation!



Don't forget to visit us at the Kentucky State Fair and see our **Amazing Tornado Machine!**



Want your own tornado machine? See <http://www.srh.noaa.gov/hun/outreach/TornadoMachinePlans.pdf>

Co-Op, cont'd from page eight...

Forecast Office in Louisville.

In addition to taking observations, Mr. Bell drives a school bus for Hart County, is a real estate agent and auctioneer, and is currently run-

ning for the Magistrate seat for his area.

The staff at NWS Louisville wishes to welcome Stanley to our National Weather Service family.



Location of Millerstown, Kentucky

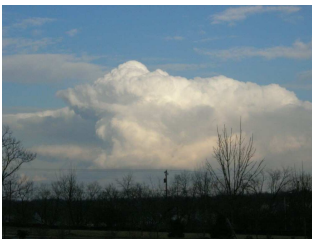
Photos taken
February 11, 2006:



Lexington, Kentucky



Elizabethtown, Kentucky



Georgetown, Kentucky



Elizabethtown, Kentucky



Hodgenville, Kentucky

Kentucky Mesonet Being Established

By Chris Smallcomb,
Senior Meteorologist

Funding has been provided to the Kentucky Climate Center at Western Kentucky University to establish the first statewide real-time weather observation network: the Kentucky Mesonet. Other universities in the state, such as the University of Kentucky, along with the NWS, are participating in the process. The current plan is to have nearly 40 stations across the state by the end of 2006. These stations will transmit observations of air temperature, wind speed and direction, hu-

midity, and precipitation every 15 minutes. Other instruments for measuring soil temperature and moisture may be added. The data will be made available to the public, research institutions, and will also be used in forecast and warning operations in NWS offices that serve the state. The many examples of the utility of this data include a better knowledge of temperatures in rural parts of the state, and the ability to quantitatively verify wind gusts in thunderstorms.

Each NWS office will be responsible for helping select sites

within their respective areas of responsibility. In May of this year Larry Dattilo, Data Acquisition Program Manager, and Chris Smallcomb, Senior Forecaster, both of NWS Louisville, attended training on proper site selection. This includes ensuring sufficient distance between the sensors and objects such as trees and buildings that could adversely affect readings of temperature and wind.

Detailed information will be posted to the news section of our website as the mesonet takes shape.

Good-bye, Pat!

NWS Louisville office had to say good-bye to a long-time employee and friend, Pat Waidley, on March 31. After two decades in the United States Navy, Pat began his NWS career at Jackson, Kentucky. He then made the move to Louisville in 1994 to fulfill his role as a Hydrometeorological Technician (HMT). In addition to

his HMT duties, Pat was in charge of the Louisville office's Climate Program.

The National Weather Service wishes Pat a happy and long retirement!



Pat braving the elements to record Kentucky's weather



HMT Pat Waidley receiving his Certificate of Loyalty Service upon his retirement March 31.

CoCoRaHS

Do you have an enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can affect lives in southern Indiana? Would you like to have a significant impact on the quality of NWS forecasts and warnings in the southern part of the Hoosier State? If so, read on about a great new volunteer opportunity.

The CoCoRaHS Network has come to southern Indiana! CoCoRaHS is the Community Collaborative Rain, Hail, and Snow network, and is one of the most exciting and fastest growing weather endeavors in the country! It involves volunteers of all ages, young and old and everywhere in between.

The network is comprised of volunteers who can accurately measure rain, snow, and hail whenever they occur. The data collected will benefit countless agencies and organizations within the fields of agriculture, public safety, and scientific research.

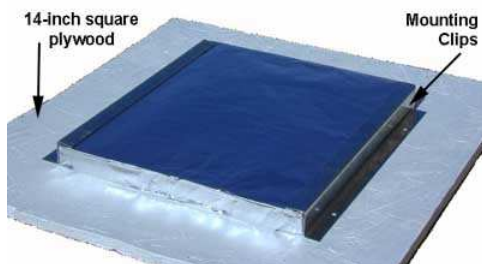
People who partici-

pate in the CoCoRaHS project in southern Indiana will be eligible to receive a free rain gauge for their efforts.

For much more information, see www.cocorahs.org/.

If you are interested in this program, you live in southern Indiana, and you have a desire to help us with rain, snow, and hail measurements, please send an e-mail to the Louisville office of the National Weather Service today! Our e-mail address is available at our website and on the last page of this newsletter. Thank you!

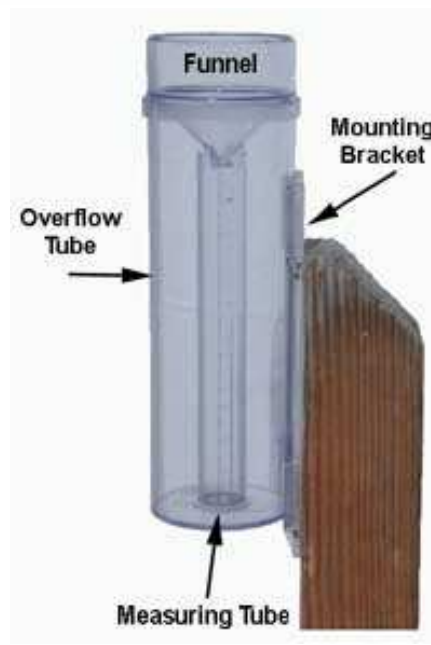
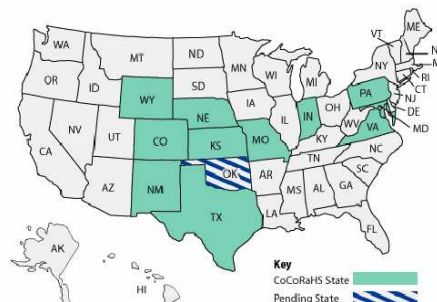
(For all you Kentucky weather enthusiasts, unfortunately funding problems preclude us from introducing this program in the Commonwealth just yet. But hopefully we will be able to expand this great opportunity into Kentucky soon!)



Hail Pad



Welcome to CoCoRaHS



Rain Gauge



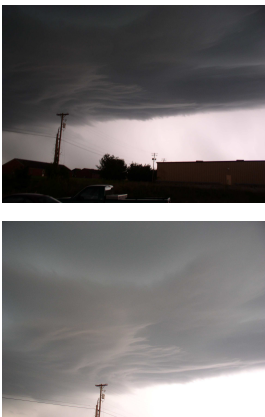
Hail Pad after a storm

Photos from severe weather April 20, 2006:

Alvaton, Kentucky:



Hodgenville, Kentucky:



Hail pummeled Lexington, Kentucky on April 19, 2006.

World's Largest Climate Prediction Experiment Needs You

By Tony Freeman, Information Technology Officer

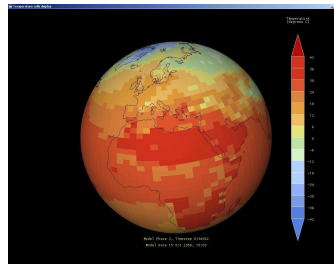
Editor's Note: Inclusion of this article in Eye on the Sky is not in any way intended to be an official National Weather Service endorsement of this program.

If you are interested in being part of a lively web-based climate science community, then you may be interested in www.climateprediction.net. The world's largest climate prediction experiment is underway and anyone with a computer is encouraged to participate. This experiment combines the power of your personal computer with the power of all other personal computers connected to the network to generate the most comprehensive probability-based forecast for this century.

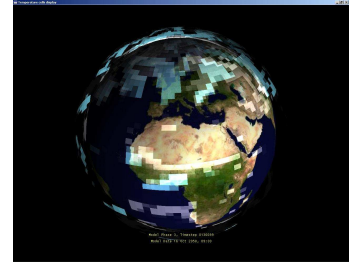
Go to the website www.climateprediction.net, then download and install the software. Your model run will process in the background. The software is designed to not interfere with your normal com-

puting experience.

Graphic packages supplied with the model will let you watch the weather patterns develop as your model runs. When the model is finished, data are returned to the scientists. While your model is running, you may even find time to attend an Open University course in climate science.



Each participant runs their own unique version of the climate model. The model runs as a background process on ordinary desktop computers and will not affect other computing tasks. At the end of the experiment, results are sent back via the Internet. Simulations of present climate and past changes will be used to test different model versions and the most realistic will be used to predict the climate of the



Twenty-first Century.

The more participants in the experiment the better - climate is immensely complicated. Models can represent some aspects of the climate very accurately, while others have to be estimated - a whole range of estimates is possible. Thanks to the "chaos theory," climate scientists cannot predict which versions of the model will be any good without running these simulations, and there are far too many for one organization to run them independently. Therefore, by including the public and running lots of models, scientists can try out all the possible combinations of these estimates. This is only possible using the Internet and computers of the general public as demonstrated by the groundbreaking work of the seti@home project.

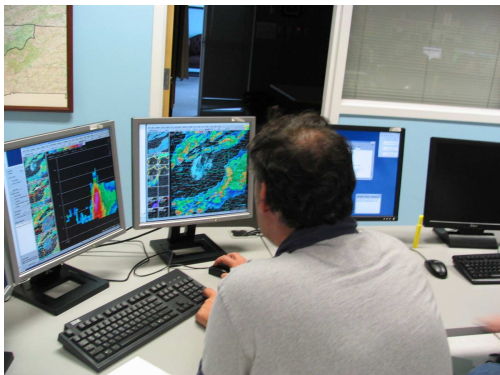
What's the Weather Office Like When Things Get *SEVERE*?



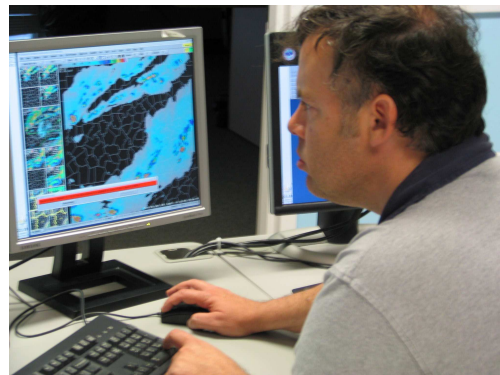
The normally quiet office environment becomes a very busy place with many people working together in “controlled chaos” to get accurate, timely warnings out to the public.



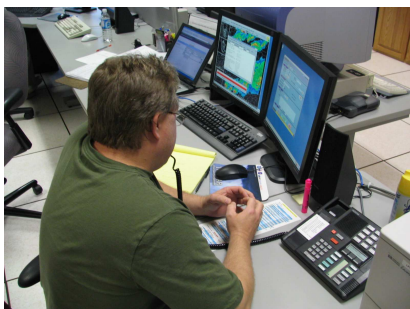
Meteorologists keep a trained eye on several different screens simultaneously, all delivering vitally important data to the warning forecaster.



Not only is a thorough knowledge of meteorology crucial when working for the nation's only official source for public severe weather warnings, so is....



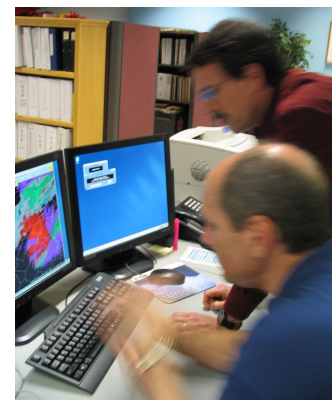
...intense concentration!



The phone is still a very important way to convey information...



...as are our invaluable volunteer amateur radio operators!



And when it's time to send out a warning, it's important to move *fast*!

National Weather Service

6201 Theiler Lane
Louisville, Kentucky 40229

Phone: 502-968-5195

Fax: 502-968-5663

E-mail: w-lmk.webmaster@noaa.gov



Flood of June 23, 1969 in Scottsville, Kentucky. Photo courtesy Joyce Weaver.

We're on the Web!
<http://weather.gov/louisville>

Do you have any favorite weather stories, memories, or personal photographs? We'd enjoy seeing them! If you'd like to share your most memorable weather experience with us, please contact us via e-mail or postal mail. If you'd like us to consider including your story in a future edition of Eye on the Sky, just let us know!

The Immense Power of Water

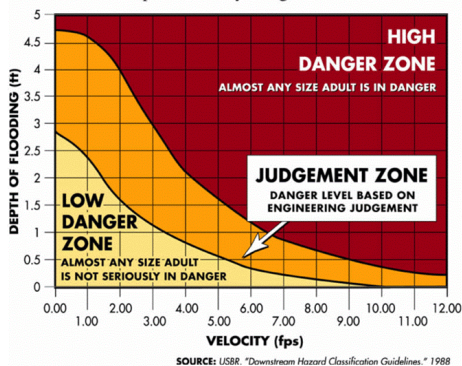
By Benjamin Schott, Forecaster

The power of water is immense, and often does not receive the respect it deserves. Streams and creeks can rise rapidly out of their banks, sometimes in as little as 15 minutes from the peak of the heavy rainfall, and inundate roadways and possibly even bridges with fast flowing water. Houses caught along such streams and

creeks can become dislodged from the foundation and float or crumble, which can be a deadly scenario. But, a big problem is people *choosing* to tread into or drive into rising creeks, streams, and rivers because they don't respect the power of water, and that can kill without reason. In water flowing 6 mph or less, only 6 inches is

needed to be dangerous for an adult, and less for a child! And less than 2 feet of water will float almost all automobiles! Trying to save 5 minutes by crossing a flooded roadway may be the last 5 minutes of your life. Turn around, don't drown!

Riverine Flood Hazard Chart for Adults
Depth - Velocity Danger Levels

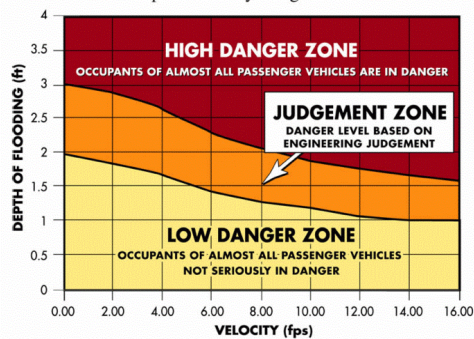


SOURCE: USBR, "Downstream Hazard Classification Guidelines," 1988



The Ohio River at Louisville

Riverine Flood Hazard Chart for Cars
Depth - Velocity Danger Levels



SOURCE: USBR, "Downstream Hazard Classification Guidelines," 1988